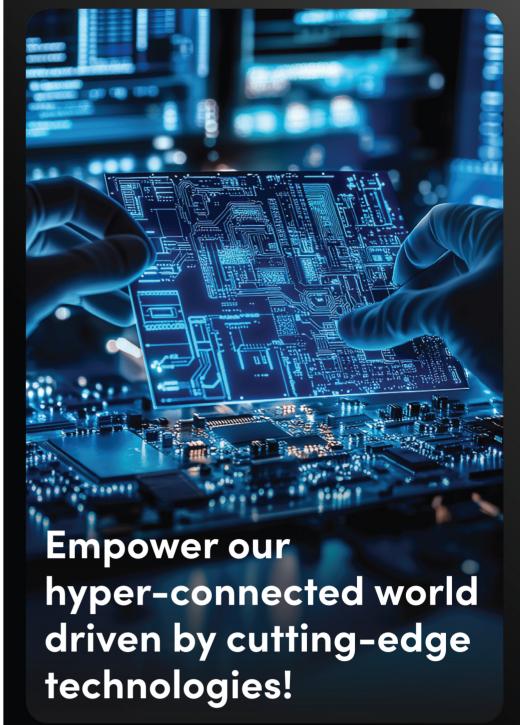
# **ELECTRONICS**

Temasek Polytechnic School of Engineering



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## **ELECTRONICS**



#### **Course Overview**

This course will equip you with future-ready skill sets in emerging technologies such as advanced manufacturing, artificial intelligence and the Internet of Things, as well as their applications in various fields like healthcare, assistive technology, and green innovations and sustainability for the environment.

- Chance to do research & development in some of our Centres of Excellence such as the TP Advanced Manufacturing Centre, Healthcare Engineering Centre, or Robotics & Automation Centre – which focus on the latest technologies
- Get the priceless experience of working with partners who are industry leaders and experts in their respective fields
- Gain more in-depth working experience under a one-year internship programme (compared to 16 weeks for most other diplomas)

### **Career Opportunities**

Singapore is home to many of the world's leading electronics and semiconductor prospects in the many diverse sectors that use consumer and industrial electronics today, such as the aerospace, telecommunications, instrumentation & control computing, consumer and industrial electronics industries.

- Electronics / IoT / System Integration Engineers
- · Automation / Maintenance / Equipment Engineers
- Production Process Engineers
- · Sales / Marketing Engineers
- Software / Firmware / Embedded Engineers • Sustainability Executives / Specialists



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#### Select the Elective Cluster that brings your dream job to life!

Year 1:

Circuit Analysis
Computer Programming
for Problem Solving
Digital Fundamentals 1 & 2
Electronic Devices & Circuits
Electronic Prototyping
Engineering Mathematics 1 & 2
Engineering Physics

Year 2:

**Advanced Electronics** & Communications Artificial Intelligence

Artificial Intelligence in Engineering Circuit & Control Systems Data Visualisation & Analytics Digital Sensors & Integrated Circuit Applications Engineering Mathematics 3 Integrated Project Microcontroller Applications Power Electronics & Drives Printed Circuit Board Design

What You'll Study

Major Project

Advanced Engineering Skills Elective Cluster #

Advanced Skills Practices

Avionic Systems

Elective Cluster #

Edge Computing & Machine Learning
Industrial IoT Analytics

Intralogistics & Cybersecurity Elective Cluster #
Distribution Centre Management

oT Security

Robotics Elective Cluster #
• Robotics & Automation Smart Manufacturing System

Sustainability in Engineering Elective Cluster #
(Choose any 2 subjects under this cluster)

Green Urban Transportation

Energy Storage

Life Cycle Analysis

Renewable Energy Technologies

Solar Photovoltaic

Technology & Lossing

Technology & Leasing

Wafer Fabrication Process & Equipment Elective Cluster # Cleanroom & Vacuum Technology Wafer Fabrication Technology

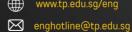
Structured Work-Based Learning Elective Cluster ^ # • Work-Based Learning

University Pathway Programme (NUS) ^ # University Pathway Programme (SUTD) ^ #

# Students to choose one of these elective clusters
^ For selected students

Temasek

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Diploma in Electronics



The information in this brochure is accurate at the time of printing For the latest information, please refer to our website Date of printing: Jan 2025